

PATENT ABSTRACTS OF JAPAN

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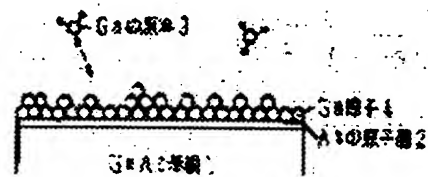
(54) METHOD FOR GROWING CRYSTAL

(57)Abstract:

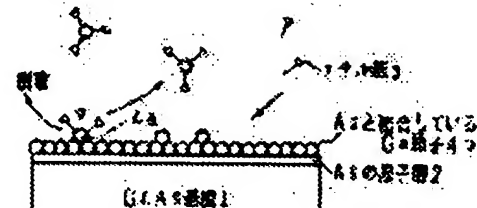
PURPOSE: To accurately form one atomic layer by depositing \geq one atomic layer of a constituent element layer of a compound to be grown on the surface of a substrate, supplying a specific substance to the surface and removing the constituent element unbonded to the substrate.

CONSTITUTION: A case of growing crystal of GaAs is explained. An atomic layer 2 of As is grown on a GaAs base 1, a raw material 3 of Ga is fed to the base and \geq one atomic layer of Ga atoms 4 is deposited on the As atomic layer 2. Then methyl group 5 to form a substance which is bonded to Ga and has weaker bond force than one between Ga and As is supplied to a growth face, brought into contact and reacted with the Ga atom 4a having deposited \geq one atomic layer and evaporated as methylated gallium. In the operation, since the Ga atom 4b of one atomic layer directly bonded to the atomic layer 2 of As has strong bond force to As, this Ga atom will not release from the surface even if the methyl group comes into contact with this Ga atom of one atomic layer.

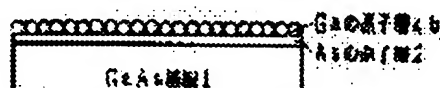
(A)第1工程



(B)第2工程



(C)第3工程



LEGAL STATUS

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